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ABSTRACT

The first in a series of related reports (see TM 000 775), this paper attempts to define a concept of psychosocial maturity which would be appropriate as a comprehensive educational goal. Biological, sociological, psychological and temporal formulations of maturity are discussed and compared. An interdisciplinary model of maturity is evolved which emphasizes (1) effective individual functioning, (2) effective interpersonal relationships, and (3) system maintenance. Effective individual functioning requires information necessary for the individual to grow and to maintain himself in the "average expectable environment" and work-related skills and motives necessary for the same end. Effective interpersonal relationships are a function of predictability and trust, and they contribute to the survival of society, which is the concern of sociological models of maturity. System maintenance depends on reproduction, socialization of the young, and shared values. Psychological standards of maturity involve the development of favorable attitudes toward self, others, and work; and of a behavior-guiding system of values. These criteria are embedded in the content of the three categories. Maturity is discussed in relation to current developments in schools and applications of a potential maturity scale are suggested. (Author/AG)

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JULY, 1971

TOWARD A CONCEPT OF PSYCHOSOCIAL MATURITY

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INTRODUCTORY STATEMENT

The Center for Social Organization of Schools has two primary objectives: to develop a scientific knowledge of how schools affect their students, and to use this knowledge to develop better school practices and organization.

The Center works through five programs to achieve its objectives. The Academic Games program has developed simulation games for use in the classroom, and is studying the processes through which games teach and evaluating the effects of games on student learning. The Social Accounts program is examining how a student's education affects his actual occupational attainment, and how education results in different vocational outcomes for blacks and whites. The Talents and Competencies program is studying the effects of educational experience on a wide range of human talents, competencies and personal dispositions, in order to formulate--and research--important educational goals other than traditional academic achievement. The School Organization program is currently concerned with the effect of student participation in social and educational decision making, the structure of competition and cooperation, formal reward systems, ability-grouping in schools, and effects of school quality. The Careers and Curricula program bases its work upon a theory of career development. It has developed a self-administered vocational guidance device to promote vocational development and to foster satisfying curricular decisions for high school, college, and adult populations.

This report, prepared by the Talents and Competencies program, examines the development of a concept of psychosocial maturity which would be appropriate as a comprehensive educational goal. The report is the first in a series which will define psychosocial maturity, develop scales for its measurement, and use the scales to study race, sex and family differences in maturity.

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Abstract

Since Dewey, American educators have been familiar with the view that schools should attempt to influence the moral and social development of the child as directly as they promote academic goals. This paper attempts to define a concept of psychosocial maturity which would be appropriate as a comprehensive educational goal.

Biological, sociological, psychological and temporal formulations of maturity are discussed and compared. An interdisciplinary model of maturity is evolved which emphasizes (1) effective individual functioning, (2) effective interpersonal relationships, and (3) system maintenance.

Effective individual functioning requires information necessary for the individual to grow and to maintain himself in the "average expectable environment" and work-related skills and motives necessary for the same end. The criteria of growth and maintenance are central to biological conceptions of maturity. Effective interpersonal relationships are a function of predictability and trust. They contribute to the survival of society, which is the concern of sociological models of maturity. Predictability is enhanced by consistent self-attitudes and the adoption of central values shared by members of the society. System maintenance depends on reproduction, socialization of the young, and shared values. The category is influenced by biological and sociological criteria of maturity. Psychological standards of maturity involve the development of favorable attitudes toward the self, others, and work; and of a behavior-guiding system of values. These criteria are embedded in the content of the three categories.

Maturity is discussed in relation to current developments in schools and applications of a potential maturity scale are suggested.

INTRODUCTION

Elementary and secondary schools traditionally have been concerned primarily with imparting academic knowledge and skills, as measured by achievement test scores. Recently, it has been argued that schools should attempt to influence the moral and social development of the child as directly as they promote academic goals (Clausen, 1963; Janowitz, 1969; Street, 1969). The school clearly has great potential as a force toward social integration, since children from a variety of social and cultural backgrounds are exposed to a relatively uniform set of norms and are provided with opportunities to learn behavior consistent with these norms.

Evidence of the impact of the school on children's personal development can be drawn from many quarters. Of special interest is the finding that as children grow older, variations in characteristics of the school, and especially of the student's peer group, play an increasingly large role in the shaping of values and aspirations; while simultaneously the role of family characteristics declines (McDill and Coleman, 1965). Since there does not appear to be a trend toward increasing cohesion of the nuclear family, and since children are spending more time in the educational system now than before, it is clear that schools will continue to have an impact on the personal development of students. The only question is whether this socializing impact should be systematized and channeled toward specific objectives, as it is for academic development, or left largely unrecognized and uncontrolled.

The school's freedom to influence children in academic and non-academic areas of development is not equally well-established, however.

The decision to require students to learn specific academic subject matter is presumed to be based on self-evident goals and therefore goes largely unchallenged.[1] Any attempt, however, to specify non-academic goals for schools is likely to encounter strong resistance. This is due in part to the belief that the selection of specific goals would be based on "value" judgments. Also, Clausen (1963, p.55) points out that "local autonomy of school systems renders far more difficult the purveying of a standardized morality or other forms of behavior." In selecting objectives of personal development, then, it is important to be aware of the wide variation in attitudes and behaviors which are valued in this society.

A promising comprehensive non-academic goal for educational institutions is the development of psychosocial maturity. This goal sounds compatible with community-wide values. The "mature" individual is thought to be an asset to the society, so commitment of schools to the orderly development of such persons might well be greeted with enthusiasm. A perfunctory readiness to promote maturity, however, would soon reveal ambiguity about what the term implies. This paper explores the concept of maturity in detail. Our purpose is to outline a concept that will uncover the main features of what socialization is supposed to accomplish. The end-product is intended to be a

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[1] In fact, the rationale for selection of specific academic goals is often unclear, although in its broad outlines, education in reading, mathematics, science and social studies is probably congruent with some of the demands of living in this society. (So is education in other, currently less valued areas.) There is no evidence, however, that training in certain academic subject areas has more personal or social utility than training in other disciplines; and at the college level, there is evidence that variations in academic performance are only weakly related to variations in post-college occupational attainment (Hoyt, 1966).

general model of maturity, rather than one dictated by a specific culture (or a particular research need). This conceptualization is intended to serve as a basis for the subsequent derivation of a scale to measure psychosocial maturity. (Greenberger, Campbell, Sørensen, and O'Connor, 1971.)

SURVEY OF THE CONCEPT OF MATURITY

Maturity can be placed in biological, sociological, psychological and (for want of a better term) temporal contexts. These are not mutually exclusive, and a temporal dimension is, in fact, integral to all.

Biological concept

Dictionary definitions of maturity have a biological emphasis: they stress attainment of completeness or the normal peak of natural growth and development. Despite the grace of this description, the meaning is not entirely clear. Further reflection suggests that a biological framework will have two major referents: the concept of capacity for survival and the concept of development to completeness. The attributes necessary for survival are those important for the continuation of the species and of the individual. In relation to the species, maturity hinges on the capacity to reproduce. In the individual sense, survival means the organism's ability to maintain itself in the "average expectable environment" for the species. Capacity for survival is a static attribute: the focus is on the presence or absence of necessary characteristics for survival, and not on the development of these characteristics.

The other dimension of the biological model, development to completeness, implies change over time, and consequently a dynamic model of maturity. The growing organism develops structures and functions over a span of time -- with increasing complexity, over a relatively longer period of time. Development to completeness in any but the simplest organisms involves a systematic passage through fixed stages of growth, wherein qualitative as well as quantitative changes occur. Qualitative changes in structure are sometimes very vivid, as when a butterfly larva becomes a mature butterfly. In other cases, changes may be subtle and their existence must be inferred, not directly observed. Changes in brain structure, for example, are inferred from certain changes in the child's cognitive functioning.

Sociological concept

In a sociological context, an acceptable interpretation of maturity might be the capacity of an individual to fulfill the demands of an effectively functioning social system (Parsons, 1951). It is important to note that the overriding aim is preservation (survival) of a social system and that psychosocial maturity is defined in terms of societal needs.

Inkeles (1961), in a discussion that is congruent with Parson's point of view, describes the requisites for continued functioning of a society and the parallel requirements of adequately socialized individuals.

Members of a society must share modes of symbolic communication, especially linguistic modes. The person, therefore, must learn

adequate language skills and the associated cognitions. He cannot "speak the same language" if he does not use the same major cognitive categories, and fill them with similar content: for example, "safe" vs. "dangerous," "more" vs. "less," and "true" vs. "false," to cite some important categories of our own.

Another requisite for continued functioning of a society is the regulation of emotional responses so that the necessary and desired social interactions will be possible, and socially disruptive forms of behavior will be curtailed. Individuals must learn to limit and channel their emotional responses. The society's general code of morality (for example, as embodied in the Judaeo-Christian tradition), and various specific role requirements, condition the release and form of impulse expression.[1]

Since societies need to have a balanced relationship to the physical setting, individuals must acquire certain information and skills that are needed to provide safety, food and shelter.

Societies function by differentiation and assignment of roles. Consequently, each individual must learn how to operate in certain of these roles (e.g., father, bus driver, student, patient). The performance of roles typically involves the learning of certain attitudes towards one's self and others and also the learning of role-relevant skills. The auto mechanic must be able to relate to his

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[1] While a morality that is shared with others is one of the attributes of a mature person, it seems likely that this is one of the last attributes acquired and that much learning of the approved kind and amount of affective expression goes on before general principles of behavior are abstracted.

employer and his customer within the limits of shared behavioral expectations, and he must be able to fix his customer's car.

The members of an effectively functioning social system have shared attitudes, idea systems, and values (goals). These vary considerably from one type of society to another. They also vary within a single society, since these generalized points of view are transformed in accordance with the individual's personality structure, class membership, and roles. Nonetheless, the effectively functioning person behaves within some range of culturally sanctioned possibilities.

Table 1 summarizes the aforementioned attributes of a mature member of a social system.[1]

Table 1

Characteristics of Sociological Maturity

Communication skills (language and cognitions)
Limiting and channeling of affective expression
Information and skills for survival
Role-taking skills
Shared idea systems, attitudes, values
Shared morality

We propose that the sociological model has two essential referents: the capacity to form and maintain effective social relationships and the

[1]Table 1 has been arranged in a rough approximation of the order in which learning in the six areas begins.

capacity to contribute to the continuation of the social system as a whole. These criteria bear a strong formal resemblance to the two dimensions of the biological model (i.e., individual and species survival).

Effective social relationships depend on mutual predictability and trust. The importance of acquiring several of the attributes listed in Table 1 (language, cognitions, role expectations, rules governing emotional expression, attitudes, values) lies in their creation of bases for predictability and trust.

Predictable behavior is at the heart of a functional social relationship. A sufficient degree of predictability creates a social analogue to the physical "average expectable environment." Under conditions of an average expectable social environment, individuals can anticipate each other's actions and expectations, and thereby establish viable relationships.

When predictions are uncertain, relationships must be based instead on trust. Even in a relationship of some duration the same individual's behavior will show some variability over time and under differing internal and external conditions. In a relationship of very short duration, there has been insufficient time to put predictions to the test. Trust is the expectation that even though another person's behavior cannot be predicted with certainty, the other will not act in ways that are detrimental to one's needs or goals. Trust is the affective outgrowth of past experiences in successfully predicting that others' behavior will not be inimical to one's interests.

Maintenance of the social system as a whole requires the existence of attributes in the individual that support its continuation. Relevant attributes include acceptance of the basic system of morality and at least one attribute not mentioned before: interest in producing and socializing children.[1]

Psychological concept

In the psychological tradition, maturity is often discussed in conjunction with (or interchangeably with) psychological health and personal or social adjustment.[2] We will focus here on the more "purely" psychological definition of maturity. A psychological model of maturity in fact includes elements of social adjustment, but is centered in addition on the crucial notion of natural growth trends in personality (White, 1966).

A review of the theoretical literature concerning personality development would be too large a task for the present undertaking. Table 2 summarizes a core of agreement among leading theorists on the critical issues in development. In the first column are the names of seven developmental accomplishments abstracted from the terms listed in the second column. In the last column are the names of the theorists with whom each term is associated. The Table does not include all variables discussed by each writer. We have omitted characteristics which appear to be unusual, rather than expected, outcomes of

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[1] Socialization is quite literally an effort to make the child into a mature member of a particular society -- a child who has the general characteristics listed in Table 1.

[2] [Mental health, adjustment, and emotional maturity] "have come to occupy a prominent place in our thinking." (White, 1966, p.367).

Table 2

Characteristics of Psychological Maturity

Characteristic	Related Terms	Source[a]
Self-acceptance	acceptance of self	Erikson
	emotional security	Allport
	freedom from egotism, inferiority, et al.	Saul
Independence	independence	Saul
	autonomy	Erikson
	self-sufficiency	Maslow
	initiative	Erikson
Social feeling	trust	Erikson
	acceptance of others	Erikson
	democratic character structure	Maslow
	warm relating to others	Allport
	accurately perceptive, responsive to others	White, Maslow, Allport
	intimacy	Erickson
Productivity	ability to work	Freud
	industry	Erikson
	task orientation	Erikson
	competence	White, Erikson
	skills for solving objective problems	Allport
	deepening of interests	White
	generativity	Erikson
Internalized Principles	ethical certainty	Maslow
	integrity	Erikson
	autonomous conscience	Saul
Humanistic values	humanizing of values	White
Identity	stable sense of identity	Erikson

[a]Pertinent literature is cited in the References.

development, many of which, incidentally, do not enjoy a wide consensus -- for example, Maslow's (1954) "aesthetic appreciation" and Allport's (1963) "unifying philosophy of life." We have also omitted from Table 2 characteristics that do not clearly increase over time, such as Maslow's "spontaneity."

Table 2, since it condenses and interprets (in the column 1 headings) several points of view, partially obscures a major theme in the psychological treatment of maturity. This theme is the orderly passage through a series of stages, or the accomplishment in a fixed sequence of a set of developmental "tasks." This theme is analogous to the concept of biological maturation, which assumes a predictable sequence of structural and associated behavioral developments, due mainly to somatic sources of regulation rather than environmental influence.[1] In psychological development, somatic and environmental influences interact. According to Gardner (undated):

> ...the personality development of the child at any stage or chronological age in his development can be regarded cross-sectionally as the end product of a series of developmental tasks -- tasks of personality and emotional development -- that must be solved by the child one after the other if he is to remain adjusted constantly to his changing environment, and if he in turn is to lay thereby the foundations in personality traits and in interpersonal social and psychosexual relationships that will ensure his adjustment and efficiency as an adult. It should be emphasized too that the successful solution of any one task in personality development, that is, the solution of

[1] Thus, the infant rolls before it sits, sits before it crawls, crawls before it stands with support, and stands alone before walking. These developments depend on genetic "programming" far more than on environmental influences, provided the environment "is sufficiently favorable to support the necessary growth" (Hilgard & Atkinsonn, 1967). Where development is delayed, it nonetheless tends to proceed through the same sequence of stages.

> that problem or task posed at its expected age level of emergence in childhood, will in large part determine the success or failure in the solution of the later tasks that are inevitably presented to the child as year follows year.

The two salient features of this viewpoint are the notion of a definite sequence of psychological development, and the concept of successful resolution of earlier tasks paving the way for successful resolution of later ones.[1]

Erikson's theory of psychosocial development is the best-known example of a "stage" theory. In this formulation, events in the life of the child which stem from biological and closely associated psychological needs and impulses on the one hand, and social responses to them on the other hand, give rise to by-products which form the structure of personality. Variations in "social responses" to an infant's needs and drives are far greater than variations in the child's biopsychological nature. Differences in the social responses therefore play a crucial role in shaping individual differences. As favorable stage-outcomes for this culture, the child is expected to develop trust, autonomy, initiative, industry, identity, intimacy, generativity, and integrity (Erikson, 1968). While these components of a mature person exist in some form at almost all times, there is a time when each becomes "phase-specific"-- when "its psychosocial crisis is precipitated

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[1]As an example, consider the adolescent task of adopting, as one's own, standards of morality that are basically in tune with those of the society in which one lives. Success in this task depends on certain outcomes in middle childhood and early childhood. The consolidation of conscience, and development of controls over and sublimations of agression, must have taken place during the former period; the development of trust in others, including a belief in the possibility of satisfying and satisfactory relationships, must have been accomplished during the earliest years.

both by the individual's readiness and by society's pressure" (Erickson, 1959, p.119). We shall describe each of these normative crises briefly.

Basic trust arises in the first year of life out of satisfying experiences in relation to the baby's needs for food, touch, and other sources of well-being. Trust, as opposed to a basic sense of evil, is the foundation of "primal hope" throughout life, as opposed to "primal anxiety." The child's experiences concerning the withholding and elimination of bodily wastes lay the foundation, in the second and third years, for autonomy -- the sense that it is safe to make one's own choices and possible to have control over what happens. The opposite is a sense of badness, shame, and doubt. Social reactions to other biosocial needs and impulses may, over time, produce the ability to exercise initiative: to select goals and persevere in approaching them, and to experiment, in play, with various roles. This issue becomes critical in approximately the fourth and fifth years. Industry is phase-specific during the elementary school years. It involves developing a sense of workmanship and work-participation. These accomplishments move the child significantly toward an eventual place in the economic structure of society and expand the child's bases of identification with his parents in a more neutral and adult direction. Identity, the major crisis of adolescence, is an evolving (rather than fixed) integration of one's needs, capacities, identifications, competencies and consistent roles. One knows "who one is" and "where one is going." One also anticipates that significant others "know what to expect" of one: that is, they can make relatively accurate

predictions about us on the basis of our expressed attitudes, behaviors, and known motives. There is a sense of inner continuity and sameness. Intimacy is the core normative crisis that follows the identity crisis. Friendship, competition, and sexual relationships on a mutual versus identity-destroying basis constitute this major problem of post-adolescence-young adulthood. In the adult years, generativity, as opposed to self-absorption, is the favorable outcome of development. Generativity involves conern for establishing and guiding the next generation, on the one hand; and a productive, creative orientation in the area of vocation, avocation and tasks. Integrity is the end-stage of development and is reached in "mature age." It involves a commitment to one's self despite disappointments and renunciations. Its opposites are disgust and despair.

"Completed" individuals in this society have experienced and resolved psychosocial crises in a way consistent with this set of eight outcomes.[1] The earlier impairments to favorable development occur, the more extensive the damage to successful maturing.

Temporal concept

The temporal model of maturity is a-theoretical. It treats maturity as "what happens with age." The temporal orientation seems most characteristic of medicine, and of pediatrics in particular. Examples,

[1] In other societies, other outcomes may be desired: e.g., mistrust, guilt, isolation. It is difficult, however, to imagine how a society could survive with too great a number of what are from our standpoint "negative" outcomes.

however, cut across several fields. The clearest instance of a temporal approach to maturity may well be the work of Gesell and his colleagues, which gives behavioral norms for children year-by-year (e.g., Gesell and Ilg, 1949). Ghiselli's (undated) temporal definition of maturity is interesting for the many problems it raises. He says:

> "The term maturity ordinarily is taken to refer to that state where the processes of development are complete so that there is no further growth or improvement. However, the processes of change seldom stop completely...As a consequence, what is termed completeness of development is likely to be simply an arbitrary point in growth. Hence in practical terms it is more useful to think of maturity in relative terms. An individual who has the characteristics of a person older than himself is said to be mature, whereas one who has the characteristics of a younger person than himself is said to be immature. Therefore, maturity is usually taken to refer to the extent to which an individual is more like those who are older than he is, rather than those who are younger..."
> (Ghiselli, p.16)

CRITIQUE AND COMPARISON OF THE MATURITY MODELS

The major points of similarity and difference among the four models of, or approaches to, maturity are these:

(1) is the model static or dynamic?

(2) is it causal or non-causal?

(3) is its scope broad (general) or narrow (specific)?

(4) are its categories culture-free or culture-bound?

(5) is the model based on a theory of human behavior or is it a-theoretical?

A brief description of these dimensions will simplify the discussion which follows.

A dynamic model of maturity focuses on the course of development and therefore on changes that occur over time. A consequence of this approach is a relative concept of maturity. The degree of maturity can be evaluated at different points in time within the same individual, or at a particular point in time -- for example, age 14 -- among individuals. A static model always focuses on a single point in time, which is usually the end of development. Dynamic models tend to be causal and therefore oriented towards the discovery of mechanisms underlying differences in the development of maturity. Static models tend to be non-causal (or at least less preoccupied with causes) and concerned with the analysis and definition of desired end-products. (End-products in this context refer to attributes of psychosocial maturity.)

The scope of a model is broad or narrow in comparison with other available models. The term refers essentially to the heterogeneity of referents in the model. A model is culture-free to the extent that its categories of analysis are relevant across societies. Despite variations among cultures, it seems possible to delineate certain general aspects of maturity. For example, individuals must develop a set of self-attitudes and motives, attitudes toward others, and a position in the family and work systems of the society. The specific content -- independence vs. dependence, egalitarian vs. caste-conscious, etc. -- is variable.[1] A model of maturity based on a theory of human behavior is one in which the criteria of maturity are derived from a more general set of assumptions (for example, psychoanalytic theory).

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[1] A model of maturity developed for use in a specific society will necessarily be culture-bound in content. Its categories, however, may be relatively culture-free. (A better term would culturally invariant.)

In contrast, an a-theoretical model merely lists a set of characteristics whose importance and interrelations are unspecified.

A good general model of psychosocial maturity would be dynamic, since maturity is obviously a developmental phenomenon; causal, since the study of development focuses on sources of variation; broad in scope; culture-free; and based on a general theory of human behavior.

Temporal model

We shall begin our critique and comparison with the temporal model that was the final object of attention in the previous section. The temporal approach is dynamic, non-causal, and deals with end-products. Its scope is very broad and its content includes both culture-bound and culture-general characteristics (foremost among the latter are physical attributes associated with maturity). The approach is typically highly empirical rather than theoretical: one seeks to document all observable characteristics associated with increasing age. The approach is not based on any theory of behavior, but is usually constrained by the criterion of completion or perfection of development.[1] In practice, this criterion is hard to operationalize and in some cases is altogether neglected. Ghiselli's discussion of maturity illustrates the point. Ghiselli equates maturity with having the characteristics of an individual who is older than oneself. If maturity is supposed to represent an ideal state of development, there is every reason to suppose that maturity does not increase in linear fashion with age forever.

[1] This criterion of maturity is explicit in the biological model and implicit in the sociological and psychological framework.

Carried to its extreme, Ghiselli's definition would lead to indexing maturity by arteriosclerosis. Another difficulty with Ghiselli's formulation is the absence of specificity regarding "growth and improvement." The lack of a theoretical framework raises these questions: Growth to what point (serving what purpose)? improvement of which characteristics, and by what criterion "improved"? These questions bring into focus the most pervasive problem of temporal formulations of maturity: they are over-inclusive. For the purpose of developing a concept of psychosocial maturity, the temporal framework includes much that is irrelevant.

Biological model

The biological concept of maturity, as we said earlier, has two aspects: the end-product of adequacy for survival and the process-variable of development to structural completeness over time. The latter is a dynamic concept. A major goal of the study of development is the discovery of causal mechanisms underlying growth. Adequacy for survival, in contrast, is a static concept: one focuses on the presence and absence of the necessary attributes and not on their development. The biological model of maturity is narrow in comparison with other approaches and is not culture-bound. The biological model of maturity is ultimately based on a general theory of the evolution of living organisms: a conception about the origin of the species lies at its core.

The narrowness of the biological model of maturity is its main shortcoming as a basis for viewing human pyschosocial maturity. Nonetheless, some of its concepts can be permuted with interesting consequences. While a person's capacity to reproduce is indeed

crucial to his biological maturity, it is questionable whether it is a necessary attribute of psychosocial maturity. For the human species, it is by no means clear that racial survival depends on a high incidence of reproduction. On an individual level, therefore, it seems questionable to tie the concept of maturity to biological fertility and/or capacity to bear a child. It appears unreasonable to assume that maturity should cease or decline when reproduction becomes biologically impossible. A further problem with the biological emphasis on species survival is the fact that mere reproduction often does not guarantee continuation. The young of higher species are not able to function independently immediately after birth. Especially in considering human maturity, we may wish to consider, as a better criterion than fertility, the capacity to care for, teach skills to, and otherwise socialize the young.

Turning from the long-range to the short-range aspect of survival, we come to the issue of interactions with the environment. The biological model invokes the concept of the "average expected environment." Sheer ability to survive in the physical environment is not a major dimension of psychosocial maturity in most societies that operate above a subsistence level. The division of labor, for example, makes it unnecessary for everyone to know how to provide himself with food, heat, and shelter. Instead, he must be able to provide skills or services for sale or trade to others who <u>can</u> supply him with what he needs. (A deviant adjustment permitted in most societies is the physical care of those who are genetically or psychologically unable to develop and use socially valued skills).

The concept of development to biological completeness over time is clearly a concept that is relevant also to psychosocial maturity. We shall discuss this issue further in a subsequent section of this paper.

Sociological model

The sociological model of maturity is static and non-causal: it focuses on end-products. In this respect, and in general spirit, it resembles the biological survival model.[1] The scope of the sociological model is broad: it includes language, cognition, information, affect, and values. The categories for analyzing maturity (Table 1) seem applicable to maturity in any culture.

The sociological model draws attention to broad classes of behavior that play a part universally in effective and lasting interpersonal relationships. Sociologists have been aware of the variation among societies in what would be regarded as maturity when specifying any "content" for these categories.[2] Finally, the model we have discussed is based on a general theory of action (Parsons, 1951). It should be remarked, however, that sociological theories are not well specified, and consequently there is some arbitrariness involved in selecting categories of analysis. (Since sociologists are even more likely to disagree about the attributes needed in a particular society, the arbitrariness of naming specific "content" is greater.)

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[1]The major criterion of the sociological model is survival, specifically, the survival and continuation (reproduction) of society, which is ensured by the conformity of individuals to societal requirements.

[2]More work on specifying content has been done in the areas of values, norms related to morality, and roles than in the areas of language, cognition, and knowledge (traditionally, the domain of psychology).

Of the models examined so far, the sociological approach comes closest to suggesting a general framework for the study of maturity. A major shortcoming, however, is the absence of a concept of development. The sociological model does not tell one anything about the rate and order in which the various attributes of maturity appear, nor does it attempt to locate factors which cause variations in the rate and eventual level of development. A static model such as the sociological one may lead to meaningless activities such as trying to compare individuals in terms of attributes that are not characteristic of their current stage of development. (Imagine comparing butterfly larvae in terms of the size of their wings; or 7-year-old children in terms of their degree of ego identity.)

Psychological model

The psychological formulations which we have described are developmental and causal in nature. Like the biological model, psychological formulations depict the growth and completion of structures over time; present hypotheses about the conditions which support and impede successful stage completion; and relate present and future developments to resolutions achieved in earlier stages of growth. This dynamic point of view contrasts sharply with the sociological formulation.

The scope of psychological models is broad: a considerable variety of behaviors is suggested by the variables in Table 2. The categories listed in the first column of this Table are not necessarily culture-bound. A more general set of categories can be derived from the

psychological model and used to describe development in other societies. The general categories are, (1) attitudes toward self, (2) attitudes toward others, (3) work-related motives, interests and skills, and (4) values.[1] However, Table 2 summarizes a maturity "content" that is applicable specifically to our own society. This content often has been described as the "natural" trend of growth (White, 1966), with little explicit recognition of the fact that what seems "natural" depends on the value structure of this society.[2]

Most developmental psychological models are based on a theory of the growth and organization of personaltiy. These theories (for example, Erikson's) have led to a considerable amount of empirical research. For each of the terms listed in the first column of Table 2 there is research on the etiology of the characteristic. There is less research, however, concerning the development of productivity and identity than there is concerning the other attributes of maturity.

TOWARD AN INTEGRATED CONCEPT

We propose that an interdisciplinary approach to the notion of maturity will provide the most useful concept for educational research. Such and approach should:

(1) include biological, psychological and sociological referents

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[1] In other words the categories listed in column 1 of Table 2 might be reorganized so that self-acceptance and identity become part of (1) above; social feeling and independence become part of (2); productivity gets subsumed under (3); and internalized principles and humanistic values become part of (4).

[2] Some writers, e.g. Rogers (1955) actually imply a spontaneous growth similar to biological maturation, rather than growth trends reinforced by socialization procedures (reinforcement, modeling).

(2) have operational or measurable concepts

(3) utilize concepts which are, insofar as possible, applicable across cultures

(4) suggest causal sequences

(5) lead to a theory of the development of psychosocial maturity

(6) lead to the construction of instruments for measuring change or process

Since the implications of several of these issues already have been discussed, we will limit further comments to the first two points.

The major referents of each of the major approaches to maturity are briefly summarized here. The essence of the biological model is the development over time of structures necessary for species survival and for growth and maintenance in the average expectable environment. The crux of the sociological model is societal survival, which is ensured by stable social relationships -- in turn dependent upon the existence of mutual trust and predictability among members of the society. The core of the psychological model is the completion of structures relevant to the self, to relationships with others, to the domain of work, and to a system of values which controls behavior.

Table 3 outlines an interdisciplinary formulation of maturity based on three categories: effective individual functioning, effective social relationships, and system maintenance. The biological concept of maturity makes its impact on the first and third categories; the sociological formulation has its main influence on the second and third; while the psychological conception of maturity suggests content in all three categories.

Table 3

An Interdisciplinary Concept of Maturity

Effective individual functioning

information

work-related skills and motives

Effective social relationships

predictability:

consistent self attitudes

shared values

trust

System maintenance

reproduction

investment in socialization of the young

acceptance of basic value system

Effective individual functioning. To satisfy the criterion of being able to grow and maintain oneself in the environment, the individual must be motivated to acquire certain basic information and skills: for example, information about health, safety, and means for ensuring subsistence (chief among them, work opportunities). Most important, the individual should be motivated to do work. The general disposition to be productive can be assessed in terms of avowed interest in work, ability to take a task orientation (to perservere, to value task-completion, to defer other forms of gratification), and the acquisition of work or task competencies. These characteristics enable the individual to function effectively on his own in the social system.

Effective social relationships. To promote the day-by-day survival of the society, the individual must be able to predict, in general, the behaviors and feelings of others; be predictable himself; and in the absence of good grounds for making predictions, trust others. A mature person will need to know the society's major role behaviors and expectations and the central attitudes and values, along with a few major variations (e.g., variations due to age-grade membership or social class). These are the basis for anticipating the behavior of others.

The individual's own predictability is a function of the character and stability of his attitudes and beliefs. Variables that originate in psychological models of maturity are relevant here: especially, self-attitudes and internalized values. For example, a clear and stable sense of identity ensures that an individual's behavior will be congruent over time and across events. Such congruence is experienced by others as predictability. Internalized values put a crucial part of one's

culture "inside." Since changing external conditions (opportunities, rewards) then have less impact on him, behavior becomes more predictable. These characteristics lead to stable relationships with others.

Trust permits the individual in a complex and often anonymous society to act in concert with others and makes him receptive to social influence. In this connection, consider the acquisition of information necessary for "effective individual functioning." Trust, since it permits reliance on others as sources of information, compensates for the possible inability of (and lack of necessity for) each individual to obtain first-hand knowledge.

System maintenance. To satisfy the requirements of species survival, the mature individual must be interested in reproducing at a level consistent with the needs of the society and availability of resources, and able to invest in activities pertinent to the socialization of the young. Interest in reproduction, as specified above, would include the personal expectation of having children and willingness to adjust their number to societal need and personal and environmental resources. The mature person might be expected to engage in, or at least, value, a variety of activities necessary for socializing the young: among them, caretaking, formal and informal teaching, and the acquisition of knowledge about conditions which promote the physical and mental health of children. Along with the adoption of values that are central to and shared by most members of the society, these characteristics of an individual promote the long-range maintenance or survival of the society.

Table 3 described an interdisciplinary concept of maturity on a general level. It will require further analysis to establish the specific outcomes demanded by a given society. This effort should include not only a conceptual analysis of the society but also an empirical survey of the relevant attitudes and skills which do, in fact, develop during the course of the major socialization period: childhood through late adolescence-early adulthood.[1] Outcomes that do not show growth do not belong in the conceptual model of maturity. Nor do all outcomes which show change in a culturally desirable direction necessarily belong in the model (e.g., ball-throwing skill).[2] Such research is already underway and culminates in the development of a scale to measure the concept of maturity that we have outlined (Greenberger, Campbell, Sørensen and O'Connor, 1971).

MATURITY AND THE SCHOOL

The psychosocially mature person has resources that permit him to act effectively on his own in society. Recent developments suggest a growing interest in the school's role in promoting psychosocial maturity.

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[1]Most developmental research focuses on childhood and adolescence, but it is clear that the growth of maturity, as we define it, involves family and job experiences that emerge in the post-adolescent period.

[2]The validity of inferences about maturity based on empirical growth data is the major theme of a forthcoming paper (Sørensen and Greenberger, 1971).

For example, several years ago the State Board of Education in Pennsylvania created a committee composed of citizens and professional educators to establish goals of a "quality" education. This committee took the position that "the goals of education having to do with the growth of youngsters as persons and as useful members of society are just as important as the goals of conventional academic achievement" (Campbell, Beers, Coldiron and Hertzog, 1968, p.2, italics added). They further stated that any evaluation procedure which did not assess growth in these areas as well as academic growth would be deficient as a basis for determining whether the program of any school district is educationally adequate. The seven "non-academic" goals on which the Committee converged were: self-understanding and self-esteem; acceptance and appreciation of ethnic diversity; positive attitude toward school and the learning process; preparation for a world of change requiring continuing education; habits and attitudes of responsible citizenship; creativity; and finally, interest in and knowledge of opportunities for leading a productive (vocational) life. Three academic or para-academic goals were named: mastery of basic verbal and numerical skills; information relevant to maintaining physical and emotional health; and awareness of cultural achievements in the arts and sciences. It is clear that the concept of psychosocial maturity integrates many of these variables under the umbrella of a single, unifying construct.

The concept of maturity resembles in some formal ways the concept of academic achievement. For example, achievement and maturity both

have various separable components (verbal skills, numerical skills, knowledge of social studies and science on the one hand, and a number of values and attitudes, on the other hand). For both maturity and academic achievement, development proceeds toward a more favorable outcome over time (although not endlessly). The latter similarity suggests an interesting possibility.

The periodic assessment of achievement now furnishes information about how well individual students are learning academic subject matter in comparison with other students in the same grade and in the larger community and nation. Eventually, periodic assessment of maturity, in relation to local and national norms, could yield information on a youngster's psychosocial development. The creation in the school of an appropriate social and moral environment, as well as an appropriate curriculum, for fostering psychosocial maturity would then become an issue of equal importance to the creation of effective learning environments.[1]

As Clausen (1963) has observed, it has long been a salient policy issue in public education in the United States whether, and to what extent, the schools should attempt to be socialization agents in broader spheres than the teaching of basic academic disciplines. John Dewey has been the most influential proponent of broader goals for schools.

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[1]Currently schools attempt to influence directly the information and work-related aspects that we classify under effective individual functioning. Schools undoubtedly also affect behaviors relevant to forming and maintaining effective social relationships and system maintenance, but, as remarked at the outset of the paper, this impact is less programatic.

It appears that the social climate is more favorable to such views now than it has been for many years. This may be due in part to the increasing attention directed toward two matters of urgent concern: equality of opportunity regardless of social origins, and the related problem of social cohesion or integration. Clausen maintains that

> ...in any democratic society where social origins are associated with grossly varying cultural orientations, the attainment of responsible citizenship by the bulk of the population is largely dependent on the educational system. The assimilation of ethnic and other minorities requires that agents from outside the family provide orientation to the larger society and its values...Further, if alienation of large segments of the population is to be avoided, the moral commitment of citizens to the dominant values of society is also requisite.
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> (1963, pp.154-155)

The term equality of educational opportunity was initially used in relation to the access of a youngster to experiences that led to good achievement test scores (see, for example Equality of Educational Opportunity, 1969). The term equality of educational opportunity could be expanded to include access to experiences that prepare the child for psychosocially mature functioning.

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